

PRACTICE EXERCISES

Multiply or divide as indicated.

1. $\frac{4x^2}{5y} \cdot \frac{7y}{12x^4}$
2. $\frac{2x^4}{10y^2} \cdot \frac{5y^3}{4x^3}$
3. $\frac{7x}{4y^3} \div \frac{21x^3}{8y}$
4. $\frac{3x^3}{5y^2} \div \frac{6x^5}{5y^3}$
5. $\frac{8y-4}{10y-5} \cdot \frac{5y-15}{3y-9}$
6. $\frac{2x+12}{3x-9} \cdot \frac{2x-6}{3x+18}$
7. $\frac{6x+6y}{x-y} \div \frac{18}{5x-5y}$
8. $\frac{3y-12}{2y+4} \div \frac{6y-24}{4y+8}$
9. $\frac{x^2}{x^2+2x+1} \div \frac{3x}{x^2-1}$
10. $\frac{y^2-5y+6}{y^3} \div \frac{y^2+3y-10}{4y^2}$
11. $\frac{x^2-4}{x^2-1} \cdot \frac{x+1}{x^2+2x}$
12. $\frac{y^2-25}{y^2-16} \cdot \frac{y^2-4y}{2y+10}$
13. $\frac{x^2-49}{x^2y^3} \div \frac{x^2-14x+49}{3x^2y^3}$
14. $\frac{x^2-7x+10}{xy^6} \div \frac{x^2-11x+30}{x^2y^5}$
15. $\frac{x^2-5x+6}{x^2-4} \cdot \frac{x^2+3x+2}{x^2-2x-3}$
16. $\frac{y^2+2y-8}{y^2-16} \cdot \frac{y^2-8y+16}{y^2+3y-10}$
17. $\frac{x^2+9x+14}{x^2-3x-10} \div \frac{x^2+14x+49}{x^2+2x-35}$
18. $\frac{y^2-5y-36}{y^2+y-12} \div \frac{y^2-4y-45}{y^2+2y-15}$
19. $\frac{x^2+2x}{3x^2+5x-2} \cdot \frac{6x^2+13x-5}{2x^2+5x}$
20. $\frac{y^2-9y+14}{y^2-8y+7} \cdot \frac{y^2+3y-4}{y^2+3y-10}$
21. $\frac{y^2-25}{(y+5)^2} \div \frac{2y-10}{4y+20}$
22. $\frac{y^2-36}{(y+3)^2} \div \frac{5y-30}{2y+6}$
23. $\frac{x^2+x-20}{2x^2-32} \div \frac{2x^2-50}{2x^2+8x}$
24. $\frac{x^2+6x+9}{2x^2-18} \div \frac{6x+18}{3x^2-27}$
25. $\frac{2x^2+9x+10}{x^2+5x+6} \cdot \frac{x^2+7x+12}{4x^2+6x-10}$
26. $\frac{3y^2-6y+3}{2y^2-7y+6} \cdot \frac{2y^2-y-3}{5y^2-5}$
27. $\frac{2x^2-6x}{x^2+18x+81} \cdot \frac{9x+81}{x^2-9}$
28. $\frac{3y^2+3y-6}{2y^2-98} \cdot \frac{y^2-13y+42}{5y^2+10y}$
29. $\frac{2x^2-3x-20}{2x^2-7x-30} \cdot \frac{4x^2+12x+9}{2x^2-5x-12}$
30. $\frac{2y^2+5y+2}{4y^2-1} \cdot \frac{2y^2+y-1}{y^2+y-2}$
31. $\frac{6x^2-x-2}{12x^2+5x-2} \div \frac{4x^2-1}{8x^2-6x+1}$
32. $\frac{3y^2+11y+6}{4y^2+16y+7} \div \frac{3y^2-y-2}{2y^2-y-28}$
33. $\frac{6y^2+13y+6}{4y^2-9} \div \frac{6y^2+y-2}{4y^2-1}$
34. $\frac{3y^2+14y+8}{2y^2+9y-5} \div \frac{3y^2+20y+12}{2y^2+11y-6}$